

First Aviation Services Inc.

15 Riverside Avenue | Westport, CT 06880 USA | Tel: +1 203.291.3300 | firstaviation.com

November 8, 2016

Joshua Krotec, Senior Vice President
Comments to Government-Industry Advisory Panel

SUBJECT: Government Rights in Maintenance Technical Data

EXECUTIVE SUMMARY

The Department of Defense (DOD) has the tough task of modernizing its warfighting capabilities while working within a limited budget. First Aviation believes that both important goals can be met by enforcing existing laws that provide DOD with unlimited rights in maintenance technical data.

Upwards of 70% to 80% of DOD contracts for the maintenance / sustainment of major weapon systems are sole-sourced to the original equipment manufacturer ("OEM") due to a "lack of technical data." This rampant use of sole sourcing without full-and-open competition has cost DOD hundreds of billions of dollars over the past decade and will continue to cost DOD if the laws are not properly used and enforced. Furthermore, this sole sourcing and lack of enforcement of DOD's unlimited rights to maintenance technical data have steered work away from DOD's capable depots and into OEM facilities.

Why is this the case? United States law, the Defense Federal Acquisition Regulation Supplement (DFARS), and DOD policies each state that the Government has and should be using its unlimited rights in maintenance technical data which would serve the best interests of the taxpayers and our national defense.

In short, our several years of research into the matter shows that there is a mistaken belief among many DOD Contracting Offices that the Government has only limited rights (or no rights) to detailed maintenance technical data because many OEMs call such data "proprietary," claim copyright, and/or mark all technical documents with use and distribution restrictions. These OEM restrictions have gone unchecked and unchallenged by Contracting Offices, resulting in unbridled sole-sourcing.

Such OEM claims do not trump United States law, and in any event DFARS and related regulations and policies confirm that the Government still retains unlimited rights in maintenance technical data, despite claimed copyrights, and provide DOD the ability to challenge such restrictions.

DOD must actively protect and use its unlimited rights in all O-, I-, and D-level maintenance technical data.

This Panel should advise the Secretary of Defense to:

1. Issue a Department-wide Order confirming that the Government has unlimited rights in all O-/I-/D-level maintenance technical data, and that no maintenance/sustainment contracts should be awarded without full-and-open competition on the purported grounds of a lack of O-, I- or D-level maintenance technical data;
2. Investigate key DOD sustainment programs and upcoming sustainment solicitations to determine whether the programs have protected and used the Government's unlimited right in all maintenance technical data to foster competition; and
3. Allow members of Industry to initiate challenges to use and release restrictions for operations, maintenance, installation and/or training technical data.

BACKGROUND

- DOD competition reports show that 70% to 80% of DOD's aircraft maintenance / sustainment contracts are sole sourced without competition¹.
- A majority of DOD Program Support offices claim an inability to compete life-cycle support contracts due to a lack of "technical data".
- Nevertheless, US law, DFARS and DOD's own policies require Program Support offices to ensure sufficient technical data rights to enable competition throughout a product's life cycle:
 - 10 U.S.C. § 2320(a)(2)(C)(iii) – restrictions on DOD's rights to technical data do "*not apply to technical data that (iii) is necessary for operation, maintenance, installation or training*" (emphasis added)

¹ 3rd Quarter FY 2015 DOD Competition Reporting (the latest quarter for which Major Command-level data is available):

- NAVAIR only competed 19.2% of its \$19.8B of quarterly spend.
- AFMC competed 27.3% of its \$27.4B of quarterly spend.

Furthermore, DOD's latest Competition Reporting (3rd Quarter FY 2016) shows that the Army, Air Force and Navy – as well as DOD overall – have all achieved a lower level of competition in FY 2016 when compared to the already terrible FY 2015 levels.

- DFARS 227.7102-1(a)(2) – “DOD shall acquire... technical data are required for repair or maintenance of commercial items or processes” (emphasis added)
- DFARS 252.227-7015(b)(1)(iv) – “The Government shall have the unrestricted right to use, modify, reproduce, release, perform, display, or disclose technical data, and to permit others to do so, that are necessary for operation, maintenance, installation or training” (emphasis added)
- DOD Directive 5002.02 – “The Government will update the program IP strategy (see paragraph 6a(4) of Enclosure 2) to ensure the ability to compete future sustainment efforts consistent with the Acquisition Strategy to include competition for spares and depot repair.”

Enclosure 2, Paragraph 6 then continues - “The IP Strategy will describe, at a minimum, how program management will assess program needs for, and acquire competitively whenever possible, the IP deliverables and associated license rights necessary for competitive and affordable acquisition and sustainment over the entire product life cycle”

“The IP Strategy will be updated throughout the entire product life cycle”

“This approach integrates technical requirements with contracting mechanisms and legal considerations to support continuous availability of multiple competitive alternatives throughout the product life cycle.”

- 10 U.S.C. § 2337 requires DOD to “maximize competition and make the best possible use of available DOD and industry resources at the system, subsystem and component levels” throughout the life-cycle of a weapon system.
- Furthermore, many of DOD’s major weapon systems are (or are based on) aircraft that are FAA Type Certified commercial items, providing DOD with additional rights in maintenance technical data:
 - DFARS 227.7102-1(a) also requires DOD to acquire “technical data customarily provided to the public with a commercial item”.

- The OEMs for all commercial aircraft, engines and propellers are required to provide maintenance technical data to owners under 14 C.F.R. § 21.50(b) and related Federal Aviation Regulations (FAR)².
- FAA's Office of the Chief Counsel has confirmed that OEMs must still provide a complete set of maintenance technical data ("Instructions for Continued Airworthiness" or "ICA") to the aircraft/engine/propeller owner even when the aircraft is a Public Use aircraft (i.e. operated by or on behalf of the Government)³.
- Therefore, the FARs provide DOD with yet another regulatory method for asserting its rights in (aircraft) maintenance technical data.

In short, as 70% to 80% of aircraft sustainment contracts are sole sourced, numerous DOD Program Support offices are not meeting their life-cycle obligations to "maximize competition" and make the "best possible use" of available resources, primarily because DOD does not appropriately protect and implement its rights to maintenance technical data.

DISCUSSION

Benefits of 10 U.S.C. § 2320

The statute at 10 U.S.C. § 2320(a)(2)(c)(iii) gives DOD unlimited rights in all operations, maintenance, installation and training ("OMIT") technical data so that DOD has absolute control over the operation and sustainment of its weapon systems. In short, 10 U.S.C. § 2320 and its implementing regulations exist to ensure that the Government is not beholden to anyone (i.e. OEMs) in providing for our national defense.

Were they fully enforced these unlimited rights in OMIT technical data would enable DOD to optimize its operation and sustainment of weapon systems across DOD and Industry resources to maximize performance and capability while keeping costs in check.

² 14 C.F.R. § 21.50(b) states that the OEM "must furnish at least one set of complete Instructions for Continued Airworthiness to the owner of each type aircraft, aircraft engine, or propeller." Thereafter, the OEM "must make those instructions available to any other person required by this chapter to comply with any of the terms of those instructions. In addition, changes to the Instructions for Continued Airworthiness shall be made available to any person required by this chapter to comply with any of those instructions."

³ Mark W. Bury, Assistant Chief Counsel for International Law, Legislation & Regulations, FAA Officer of the Chief Counsel, January 2, 2015 letter to Piedmont Propulsion Systems, LLC

Ultimately, these unlimited rights in OMIT technical data allow DOD to foster competition across all capable DOD resources (such as maintenance depots) and Industry (both the OEMs and 3rd parties), which would spur innovation, effectiveness and cost-efficiency.

“Why is competition important? Because it works!”

Frank Kendall, Under Secretary of Defense AT&L

Regarding the maintenance and sustainment of aviation weapon systems, for example, DOD can take advantage of competition among over 4,000 private entities in the United States that possess Government certification (via the FAA) to maintain and repair aircraft and related sub-systems.

Issues with 10 U.S.C. § 2320 and DFARS

Perhaps ironically, the only “issue” with 10 U.S.C. § 2320(a)(2)(c)(iii) and related DFARS is their simplicity. It does not require pages of explanation to communicate that the Government has an unlimited right in the maintenance technical data for its weapon systems. It is a simple concept: DOD needs and shall have unlimited rights to maintenance technical data.

Conversely, other sections of the statute and DFARS dealing with technical data rights are more complicated and nuanced and require lengthy descriptions, qualifications and alternatives. Visually, the sub-clauses that provide DOD with unlimited rights in maintenance technical data almost seem inconsequential compared to the long list of more complicated clauses nearby. However, as written, DOD’s unlimited rights in maintenance technical data clearly trump all other potential rights restrictions.

The statute and DFARS do not provide any limitation on the definition of “maintenance” or “repair” and instead rely on the generally accepted meaning of those words in the English language. Thus, neither the law or DFARS limit the type or scope of “maintenance” or “repair” for which unlimited technical data rights must be provided.

Therefore, the law and DFARS intend for DOD to have unlimited rights in all types of maintenance and repair technical data, including the technical data required to perform all “levels” of maintenance actions:

- O-level: on-wing maintenance
 - Remove/replace instructions
 - Specifications for fluid checks, etc.
- I-level: backshop repairs
 - Instructions for frequent / common maintenance events

- Examples: wheel inspections and tire changes; battery repair
- D-level: overhaul or rebuilding events
 - Overhaul process resets the airworthiness status of a component that has reached a life limit
 - Detailed instructions are usually found in Component Maintenance Manuals

Perhaps DOD would be best served by having the DFARS clarify that DOD's unlimited right to all maintenance technical data includes all levels of maintenance events.

Issues with 10 U.S.C. § 2321

10 U.S.C. § 2321 allows DOD to challenge technical data rights restrictions. While it is important that DOD has this ability, individual DOD personnel do not have much incentive to bring forth challenges.

Thus, the Government would be much better served if members of Industry and other Interested Parties (e.g. potential competitors to the contractor asserting rights restrictions) could bring forth challenges to use or release restrictions. Industry competitors to the party asserting a restriction have an immediate – and often large – economic incentive to ensure that DOD retains unlimited rights to maintenance technical data so that DOD can use full-and-open competition for maintenance and sustainment contracts.

Issues with DOD's management and implementation of its rights with regard to Intellectual Property (IP)

Clearly, there are and have been issues with DOD's management and implementation of its unlimited rights to maintenance technical data, as DOD does not take advantage of the opportunity to foster competition through its unlimited rights in maintenance technical data.

DOD, Congress, GAO and other industry experts all agree that increased competition is the best way to get greater value for each of DOD's budget dollars, including better quality, better service, more innovation and reduced costs.

However, DOD is failing to achieve any meaningful level of competition for maintenance and sustainment contracts, and the stats are getting worse!

- “[DOD] did not achieve the FY2015 competition goal;”⁴

⁴ 4th Quarter FY 2015 DOD Competition Reporting, Claire M. Grady, Director, Defense Procurement and Acquisition Policy

- USAF Materiel Command (AFMC) and NAVAIR, sole-sourced over 70% and 80% of their dollars spent, respectively;⁵ and
- DOD's latest competition shows that FY2016 competition is even worse than FY2015!⁶

Industry press is now noticing the problems as well. Aviation Week recently wrote an editorial discussing "invisible barriers" in DOD procurement⁷

Frustratingly, most DOD Program Support offices claim an inability to compete maintenance and sustainment contracts due to a lack of "technical data," despite DOD's clear, unlimited rights to maintenance technical data!

There are dozens of examples of major DOD weapon systems (representing tens of thousands of individual components) where maintenance activities are sole sourced to the OEMs due to "lack of technical data." First Aviation is aware of several current solicitations for maintenance of aircraft systems where full-and-open competition will not be possible because DOD does not think it has rights to maintenance technical data. Examples include:

- USAF C-37 Contractor Logistics Support – not only do the DFARS require that DOD have unlimited rights in maintenance technical data for the C-37 aircraft and engines, but these are also FAA-certified aircraft for which USAF requires contractors to perform all maintenance to FAA-certified standards. As such, the OEM is also required by the FARs to make available a complete set of all ICA to the Government (and any maintenance provider so designated by the Government). Yet, the OEM refuses to provide maintenance technical data to USAF, and USAF accepts this restriction without further challenge.
- C-130J propulsion system maintenance (various contracts at USAF, NAVAIR and USCG) – DOD possesses all the maintenance technical data required to perform all O-/I-/D-level maintenance on the C-130J's R391 propeller, but NAVAIR, USAF and USCG are all sole-sourcing propeller maintenance to the (British) OEM, claiming that the maintenance technical data has release restrictions that prevent DOD from providing the technical

⁵ 3rd Quarter FY 2015 DOD Competition Reporting (the latest quarter with agency-level data).

- NAVAIR only competed 19.2% of its \$19.8B of quarterly spend.
- AFMC competed 27.3% of its \$27.4B of quarterly spend.

⁶ 3rd Quarter FY 2016 DOD Competition Reporting

⁷ Velocci, Anthony L. (2015, October). Invisible Barriers. *Aviation Week & Space Technology*, October 12-25, 2015, pp. 17.

data to a 3rd party contractor. The DOD agencies accept the release restriction asserted by the OEM without challenge and without regard to the statutory requirement that the Government receive an unlimited right in maintenance technical data.

We believe that DOD Contracting Offices are not properly prepared, equipped or incentivized to combat aggressive attempts by OEMs to block unlimited use or release of maintenance technical data designed to protect their decades-long maintenance monopolies. DOD Contracting Offices should be aware of, and actively defeat OEM attempts to restrict maintenance technical data.

In addition, DOD Contracting Offices should be educated about what information comprises a complete set of the maintenance technical data that will be required for DOD to retain absolute control over the maintenance needs of its weapon systems.

Issues with DOD practices that link technical data management and other IP considerations

DOD Contracting Offices frequently confuse maintenance technical data with other types of technical data to which the Government may not have unlimited (or even limited) rights.

Most often, First Aviation sees solicitations seeking the maintenance / sustainment of a weapon system that justify a sole source to the OEM because the OEM “is the only responsible source with the necessary engineering design and manufacturing data.”⁸ Statements discussing design and manufacturing data within the context of a maintenance / sustainment contract are proverbial “red herrings.” The OEM’s design and manufacturing data is rarely – if ever – needed to perform maintenance or related technical support for weapon systems. Rather, the contractor would need access to the appropriate maintenance manuals (i.e. maintenance technical data).

DOD Contracting Offices need to clearly delineate between maintenance technical data (e.g. maintenance manuals, service bulletins, etc.) and the OEM’s design and manufacturing data. The former are needed for maintenance and sustainment contracts, and the Government has the unlimited right to access, use and release such maintenance technical data to the contractor(s) of its choice. The latter data (design and manufacturing data) are not typically needed, and potential rights restrictions on such data obfuscate the core topic (maintenance/sustainment) and do not provide any justification for sole sourcing.

⁸ See, for example, USAF solicitation # FA8504-15-R-Propulsion, October 1, 2015

Encouraging vendors to provide DOD access to innovative products, technologies and processes that have been developed for commercial use

Contrary to popular belief, strong enforcement and aggressive use of the Government's unlimited rights in maintenance technical data will increase DOD's access to innovative products, technologies and processes.

In today's environment where DOD ignores its rights in maintenance technical data, the maintenance and sustainment of most weapon systems is sole sourced to the OEM. Many examples exist where the OEM has enjoyed a maintenance monopoly on specific weapon systems for decades.

In these cases where the OEM enjoys a monopoly, there is zero incentive for the contractor to invest in new technologies, new repair processes, or new materials that might improve mission capability, increase safety and/or effectiveness of the American warfighter, or reduce cost. Arguably, the monopolistic OEM rather has incentive to increase costs (and therefore its profits) over the life-cycle of the weapon system.

Conversely, if the DOD were to instead release maintenance technical data to potential 3rd party contractors, those 3rd party contractors would be able to gain experience with the weapon system and develop new repairs, new parts, modifications and/or upgrades to the system that ultimately improve mission capability, increase safety, and/or reduce cost.

Competition drives innovation. If DOD wants to increase access to innovative products, technologies and/or processes, DOD needs to aggressively use its unlimited rights in maintenance technical data to create competition in the market to maintain/sustain weapon systems throughout each system's life-cycle.

Importance of protecting and using DOD's rights in maintenance technical data

Protecting and using DOD's unlimited rights in maintenance technical data is imperative for DOD to meet the objectives outlined by the statute that formed this Government-Industry Advisory Panel.

- Ensure that DOD does not pay more than once for the same work

For all items purchased by DOD after the statutes and DFARS mandated an unlimited right in maintenance technical data, DOD has already paid for the technical data necessary to maintain the items. OEMs should not charge DOD separately or on a recurring basis for maintenance technical data. Such data (along with operations, installation and training technical data) is required to be

provided to the Government with unlimited rights along with the item or weapon system being purchased.

- Ensure that DOD contractors are appropriately rewarded for their innovation and invention

OEMs are appropriately rewarded for their innovation and invention when, through the course of solicitation, negotiation and contracting for their item or weapon system, DOD and the OEM agree on a price to be paid for the item or system being purchased.

Please note that – unlike operation, maintenance, installation and training technical data – the OEM's design and manufacturing data may be proprietary and DOD may not have unlimited (or any) rights to such technical data. If DOD wants or needs such design or manufacturing information, then DOD and the OEM may need to separately negotiate a transaction at a mutually-agreed price that appropriately rewards the OEM for the release of such design and/or manufacturing technical data. However, this potential negotiation over design and/or manufacturing data should not be confused with the Government's separate, unlimited rights in maintenance technical data.

- Provide for cost-effective re-procurement, sustainment, modification and upgrades to DOD systems

Aggressive use of DOD's unlimited rights in maintenance technical data is the best method for ensuring cost-effective re-procurement, sustainment, modification and upgrades to DOD systems. Release of maintenance technical data to 3rd party contractors fosters competition throughout the life-system of any weapon system, and encourages the innovation that will produce lower-cost and higher-quality alternatives for re-procuring, sustaining, modifying and upgrading any weapon system.

With the experience gained maintaining / sustaining a weapon system, 3rd party contractors can:

- create new repair and inspection methods, technologies and procedures for such systems;
- design alternative parts and components through reverse engineering; and
- develop modifications and upgrades for weapon systems using the latest technologies and materials.

- Encourage the private sector to invest in new products, technologies, processes relevant to DOD

As above, aggressive use of DOD's unlimited rights in maintenance technical data is the best method to encourage the private sector to invest in new products, technologies, processes relevant to DOD.

Release of maintenance technical data to 3rd party contractors fosters competition throughout the life-system of any weapon system, and encourages contractors to invest in new products, technologies and processes that will result in Best Value solutions for DOD.

- Ensure that DOD has appropriate access to innovative products, technology and processes developed by the private sector for commercial use

Use of DOD's unlimited rights in maintenance technical data provides 3rd party contractors with access to the weapon system life-cycle, and in turn, provides DOD with access to new, innovative products, technologies and processes that such 3rd party contractors have developed commercially.

Without the aggressive use of DOD's unlimited rights in maintenance technical data, the original manufacturers of DOD's weapon systems retain a monopoly over the life-cycle of such systems, effectively shutting off DOD's access to new, innovative products, technologies and processes that would likely offer better value to the Government.

Release of maintenance technical data to 3rd party contractors fosters competition throughout the life-system of any weapon system. With the experience gained maintaining / sustaining a weapon system, 3rd party contractors have the incentive to provide better value to DOD (and to stay ahead of the competition), and will link all appropriate commercially developed technologies to the DOD weapon system in order to deliver better capability and lower costs.

CONCLUSIONS

Strong protection and aggressive use of DOD's unlimited rights in all (O-/I-/D-level) maintenance technical data serves the best interests of the taxpayers and national defense.

Releasing maintenance technical data to DOD's depots and capable 3rd party maintenance and sustainment contractors breaks OEM monopolies and fosters the competition that is necessary to spur innovation. In turn, the resulting competition and innovation generate dual benefits of improved mission capability and increased safety of American warfighters, while also reducing life-cycle costs.

Aviation Week & Space Technology has estimated that use of DOD's unlimited rights to maintenance technical data will conservatively result in over \$300 billion of savings over the next 10 years, providing DOD with the necessary budget resources for much-needed defense modernization.⁹

What's more, the release of maintenance technical data will enable more than 4,000 FAA-certified Repair Stations (most of which are United States Small Businesses) – as well as DOD's own depots – to compete for DOD maintenance and sustainment work, thereby reducing DOD's spend with foreign companies and increasing the number of highly-skilled American jobs.

We appreciate this opportunity to submit comments to the Panel and look forward to the Panel's support for our proposed solutions.

⁹ Velocci, Anthony L. (2015, October). Invisible Barriers. *Aviation Week & Space Technology*, October 12-25, 2015, pp. 17.

PROPOSED SOLUTION #1 – ISSUE AN ORDER PROHIBITING SOLE SOURCING BASED ON A LACK OF O-, I-, or D-LEVEL MAINTENANCE DATA

First Aviation recommends that the Secretary of Defense issue a Department-wide Order prohibiting any Agency, Command or Office from awarding any maintenance or sustainment contract without full-and-open competition on the grounds of a purported lack of O-, I- or D-level maintenance technical data.

The Order should remind all DOD employees that the Government retains and should use an unlimited right in all maintenance technical data, and that all programs are expected to foster competition in maintenance and sustainment contracts by releasing relevant maintenance technical data to capable bidders.

PROPOSED SOLUTION #2 - REQUEST FOR INVESTIGATION

First Aviation recommends that DOD investigate key sustainment programs and upcoming sustainment solicitations to determine whether or not the programs have protected and used the Government's unlimited rights in all maintenance technical data to foster competition.

By law, all DOD programs should have life-cycle business cases and product support strategies that maximize competition and make the best use of available DOD and Industry resources.¹⁰

First Aviation particularly recommends that DOD scrutinize each Program's actions with regard to the maintenance technical data required to operate and maintain the system throughout its life-cycle. Each program should possess all of the maintenance technical data that is required to maintain its weapon system(s), and each program should actively use (and release, as necessary) such maintenance technical data to ensure competition in all sustainment contracts.

First Aviation can provide sample questions and data requests that DOD could use to initiate such investigations. First Aviation can also provide a list of sustainment programs to investigate.

¹⁰ 10 U.S.C. § 2337 requires DOD to “maximize competition and make the best possible use of available DOD and industry resources at the system, subsystem and component levels” throughout the life-cycle of a weapon system

PROPOSED SOLUTION #3 – ALLOW MEMBERS OF INDUSTRY TO CHALLENGE USE OR RELEASE RESTRICTIONS ON MAINTENANCE TECHNICAL DATA

10 U.S.C. § 2321 allows DOD to challenge use and release restrictions that OEMs attempt to impose on technical data.

§ 2321 should be updated to also allow members of Industry to initiate challenges to use and release restrictions as well.

Members of Industry have a tremendous economic incentive to ensure that DOD retains appropriate rights in operations, maintenance, installation and/or training technical data in order to prevent an OEM from creating or maintaining a monopoly throughout the life-cycle of any weapon system.

DOD employees, by contrast, do not have much incentive (if any incentive at all) to challenge use or release restrictions. In fact, DOD Contracting Offices may have a disincentive to challenge use or release restrictions for maintenance technical data, as such (inappropriate) restrictions provide a justification to award contracts without full-and-open competition, therefore reducing the Contracting Office's workload.

Potential competitors for maintenance and sustainment contracts will be much more aggressive in challenging rights restrictions, which would provide an immense benefit to DOD (and U.S. taxpayers) without DOD incurring the burden or cost of initiating such challenges.